

chronically treated patients could be considered as a positive trend. The project was fully supported by grant No. 103107 from the Charles University Grant Agency.

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GREEK NHS CAPACITY CONSTRAINTS REGARDING IV TREATMENT FOR RHEUMATOID ARTHRITIS PATIENTS

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OBJECTIVES: Intravenous (iv) infusion of biologic agents is a highly effective therapeutic option in treating active Rheumatoid Arthritis (RA) patients. In Greece, it is mandatory that all infusions are administered in a hospital setting, therefore, they are strongly correlated with the system's capacity in terms of resources. The objective of this study was to assess the capacity of the Greek National Health System (NHS) hospitals to meet current and projected demand for the iv treatment of RA patients. **METHODS:** Semi-qualitative interviews on the basis of a strictly structured questionnaire were conducted with the Heads of all NHS RA infusion sites, to record available resources (staff, equipment, facilities), service utilization and ability to meet current and projected demand. The questionnaire was externally reviewed and piloted to a small sample before administration. Data were analyzed using SPSSv15.0. **RESULTS:** From a total of 31 NHS infusion sites (rheumatology clinics, outpatient departments, pathology clinics, day clinics), 28 responded (Response Rate 90.3%). On average, 41.6% of Greek NHS RA patients are treated with a biologic agent. 64.2% of respondents stated that available resources are insufficient to meet current demand. The most important constraints in selection order were: space (92.8%), staff (89.2%), equipment (iv-pumps, beds and chairs—64.2%) and working hours (60.7%). A total of 56% of respondents stated that they may decline treatment to patients due to capacity constraints. Overall, respondents estimated that the number of iv patients could be increased by 104% on average, were there no capacity constraints. **CONCLUSIONS:** An important proportion of the estimated 40,000 RA patients in Greece, for whom iv biologic treatment in the hospital setting is essential for disease control, may be declined treatment due to constraints in RA-specific resources. Rationalization and reallocation of NHS resources is required to ensure equity in access to effective treatment for all RA patients.

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MANAGEMENT AND DIAGNOSIS OF OSTEOPOROTIC VERTEBRAL FRACTURES ACCORDING TO PRIMARY CARE PHYSICIANS

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OBJECTIVES: Osteoporotic vertebral fractures (OVF) are an important health concern which remain underdiagnosed in 70% cases. According to recent data, approximately 450,000 and 700,000 symptomatic vertebral fractures are diagnosed each year in the EU and in the US, respectively. The aim of this study is to understand the perceptions of primary care physicians (PCP) with regards to diagnosis and management of OVF in their consultations. **METHODS:** Exploratory design using qualitative methodology. 15 semi-structured interviews, recorded and later transcribed, with PCP between 2006–2007. Subsequently two investigators from the research team carried out the analysis and crosschecked results by identifying categories. **RESULTS:** Suspected diagnosis of OVF is based on anamnesis, physical examination and a simple X-ray. Physicians inform that this work is not executed systematically in daily consultations and sometimes chronic back pain is not studied in depth. The differential diagnosis is perceived as a complex process, leading to confusion (back pain, osteoarthritis, rheumatoid arthritis and osteoporosis). PCP agree radiology is useful in detecting a vertebral fracture. PCP refer patients to other specialists when they find difficulties reaching a diagnosis (history of fractures, repeated fractures, persistent pain, suspicion of secondary osteoporosis, etc) and also when they are not allowed to carry out a densitometry in their primary care health centre. Regarding this test, participants described a lack of both consensus and shared guidelines in its use. Minimally invasive surgical techniques are not widely known about and their access is irregular even when medical treatments are ineffective. **CONCLUSIONS:** Some recommendations have recently been proposed for OVF management. This study has identified a mismatch between the proposed recommendations and the ordinary clinical practice. PCP's diagnosis is influenced by their personal interest in the osteoporosis field, the degree to which they rely on published evidence and the proximity of surgical teams involved in this area.

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REAL WORLD DATABASE ANALYSIS: USAGE AND ECONOMIC IMPACT OF ANTI-TNFS AS SECOND LINE THERAPY FOR RHEUMATOID ARTHRITIS PATIENTS IN THE PUBLIC HEALTH CARE SECTOR IN BRAZIL

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Findings from Finckh *et al.*, 2007 suggest that rituximab may be a better treatment to rheumatoid arthritis (RA) patients who made use of a previous anti-TNF agent. The results from Hyrich *et al.*, 2007 point out that the reasons for RA patients stopping a second drug are related to the reasons for stopping the first drug. **OBJECTIVES:** To picture the scenario of the usage of anti-TNFS as 2nd line therapy for RA patients in the public health care sector in Brazil. To calculate the economic impact of rituximab incorporation as 2nd line RA therapy. **METHODS:** A database analysis on the use of anti-TNFS as 2nd line therapy for RA patients was conducted for the total period (November 2006-january 2009) available at DATASUS (www.datasus.gov.br) the

government public database. We were able to identify therapeutic pathways of 5018 patients up to December 2007. About 2.5% (122 patients) performed a switch to a second anti-TNF agent. An increasing in the use of anti-TNFS as 2nd line therapy was also identified. Then the current economic impact of anti-TNF treatment switches was calculated. Later, we substituted the second-line anti-TNF agents used for rituximab and compared the results. Drug costs were obtained from 'Banco de Preços em Saúde' (<http://portal.saude.gov.br/bps/>), the government official source. **RESULTS:** The use of anti-TNFS as 2nd line therapy for RA patients in the public health care sector in Brazil is a reality with a growing trend in Brazil. The use of rituximab, as a replacement of a second anti-TNF agent for RA patients, has the potential of offering savings of about R\$2.5 million for the public health care sector. **CONCLUSIONS:** The use of rituximab, as a replacement for anti-TNFS agents as 2nd line therapy for RA patients, could increase the clinical benefits for RA patients and bring savings of about R\$ 2,5 million for Brazilian public health care system.

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ARE THE ADMINISTRATIVE DATABASE A STRATEGIC TOOL IN DECISION MAKING? CASE STUDY: RHEUMATOID ARTHRITIS IN PIEMONTE REGION

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OBJECTIVES: The aim of this study was to evaluate retrospectively the average annual direct costs of treating patients affected by rheumatoid arthritis (RA) with and without concomitant pathologies. **METHODS:** Resource consumption and direct medical costs of patients with a diagnosis for RA were estimated using year 2007 data from the administrative database of Piemonte Region (4,401,266 inhabitants). Patients affected by RA were divided in two sub-groups: with Regional Health Service (RHS) concomitant exemptions due to other chronic pathologies (WE) and without concomitant exemptions (WoE). Resource consumption measured was the following: reimbursed drugs, diagnostic procedures, hospitalizations (including day hospital). The analysis was performed from the RHS perspective. Unit costs considered were prices and RHS reimbursement tariffs. **RESULTS:** WoE Patients were 6616 while WE patients were 5056. Mean age in the WoE group was 58.54 while in the WE group was 66.50. Distribution by age class showed that patients younger than 46 years were about 19% of the WoE group and about 5.5% of WE patients; patients older than 65 years were more frequent in the WE population (58% vs. 38%, respectively). Annual average cost of treatment per patient amounted to €2182.52 in WoE patients and to €3587.42 in WE patients. Drug cost amounted to 53% of total cost for WoE patients and to 44% in WE patients; hospitalization costs amounted to 24.9% of total cost for WoE patients and to 34% for WE patients; day hospital and diagnostic procedures amounted to around 7% and 15% respectively in both groups. **CONCLUSIONS:** The analysis of a large database showed that patients with RA are frequently affected by other important chronic pathologies and that patients affected by RA and WoE have an annual RHS cost 40% lower than patients affected by RA and WE.

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FACTORS INFLUENCING REIMBURSEMENT AND PRESCRIPTION DECISIONS ON THE RHEUMATOID ARTHRITIS MARKET IN GERMANY, SPAIN, ITALY, FRANCE AND UK

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OBJECTIVES: There is a growing emphasis in understanding reimbursement decisions for Rheumatoid Arthritis (RA), which ultimately affect patient access to treatments. Despite a wide variety of treatment options there are still patients who do not achieve an adequate response. To analyse demand and supply side of RA treatment the effects of multiple factors on prescriptions decisions (as written by the doctors) and reimbursement (*Reimb*) such as logarithmized prescriptions (*ln_Rx*), relevant therapeutic classes (*ATC*), logarithmized prices (*ln_Price*) and sales (*ln_Sales*) and disease prevalence (*Prev*) will be determined. **METHODS:** According to the underlying dependent variables different model specification has been used. To explore the multiple variables affecting RA prescription a mixed model has been implemented whereas to analyse the shares of RA reimbursement levels a logistic regression has been chosen. **RESULTS:** The analyses include 6 years period (2003–2008) of prescription data for the EU5 covering all ATC classes prescribed for RA. We found significant effects on reimbursement for *ln_Rx* (0.1868, $p < 0.0001$), *ln_Price* (−0.0189, $p < 0.0001$), and *country* (France = 1.1934, Germany = −0.2542, Italy = −0.1914 and Spain = −1.1066). On prescriptions the results are highly significant for *ln_Sales* (0.1793, $p < 0.0001$), *Reimb* (0.1718, $p < 0.0001$), *ln_Price* (−0.2576, $p < 0.0001$), *Prev* (0.5012, $p < 0.0001$), and 77% of all ATC classes. **CONCLUSIONS:** The results show that reimbursement seems to be negatively influenced by supply (e.g. high retail prices in Germany) and demand (prescriptions) effects. These results are in line with national cost containment endeavours of payors. However, different factors such as promotion of generic drug usage in UK or high pharmaceutical consumption per person as in France combined with low prices seem to have stronger positive effects on reimbursement then in Spain, Germany, or Italy. As expected sales and further reimbursement opportunities are positively influencing the prescription of RA drugs whereas increasing prices are reducing RA related prescriptions. Interestingly, we see significant positive epidemiological demand factors such as an increasing RA prevalence.